From Surface to Serious: Navigating Superficial Thrombophlebitis and DVT

Presented by Dr. Luke Rannelli, MD, MSc, FRCPC

DR. LUKE RANNELLI

Dr. Luke Rannelli delivered a practical, evidence-based overview of superficial venous thrombosis (SVT), deep vein thrombosis (DVT), recurrence risk, thrombophilia testing, and post-thrombotic syndrome. The session focused on common clinical challenges encountered in primary care and emphasized pragmatic decision-making, risk stratification, and appropriate investigation and follow-up.

Superficial Venous Thrombosis (SVT) Requires Risk Stratification

One of the major takeaways from the session was that SVT should not automatically be considered benign. Dr. Rannelli emphasized that the management of SVT depends heavily on:

- Clot length
- Proximity to the deep venous system
- Presence of risk factors
- Recurrent disease
- Associated varicose veins

He highlighted the importance of remembering two key questions:

1. How long is the clot?
2. How close is it to the deep venous system?

SVTs greater than 5 cm or located near the saphenofemoral junction warrant greater concern and may require anticoagulation. Recurrent or migratory SVTs should prompt clinicians to consider underlying malignancy or other provoking factors.

For recurrent SVTs, Dr. Rannelli noted that management can be challenging, particularly in patients with significant varicose veins. Some patients may continue to experience recurrent episodes despite anticoagulation.

Clinical Pearl
Anticoagulation reduces clot propagation risk but has not clearly been shown to fully prevent recurrent SVTs.

Alēthea

D-Dimer and Ultrasound Use in DVT Evaluation

Dr. Rannelli emphasized that D-dimer testing remains an important clinical tool when appropriately applied in the context of pre-test probability.

He also stressed the importance of being intentional when ordering repeat ultrasounds. Repeat imaging should only be performed if the result is expected to change management.

A key point repeatedly emphasized was:
Residual clot on ultrasound does not necessarily indicate treatment failure or a new DVT.

Many patients will continue to demonstrate chronic clot or residual venous abnormalities even after appropriate anticoagulation treatment. Clinicians should avoid using repeat ultrasound solely to “prove clot resolution.”

Important Distinctions

When repeat imaging is ordered, the request should specifically ask radiology to comment on:
- Acute versus chronic clot
- Evidence of new thrombosis
- Clot progression

Residual clot may instead indicate increased risk for post-thrombotic syndrome rather than recurrent thrombosis.

Thrombophilia Testing Should Be Selective

A major component of the session focused on the overuse and potential harms of thrombophilia testing.

Dr. Rannelli cautioned that indiscriminate testing often creates:
- Patient anxiety
- False reassurance
- Insurance complications
- Employment implications
- Unnecessary downstream testing

He specifically noted that many inherited thrombophilias, such as heterozygous Factor V Leiden, confer relatively small increases in thrombosis risk yet can still significantly affect patients’ ability to obtain insurance coverage.

Situations Where Testing May Be Appropriate

Testing may be considered in:

- Recurrent unprovoked VTE
- Arterial thrombosis
- Recurrent pregnancy loss
- VTE occurring despite anticoagulation
- Unusual clot locations (e.g., cerebral, renal vein, upper extremity without thoracic outlet syndrome)
- Strong family history

Situations Where Testing Is Often Not Helpful

Routine thrombophilia workup is generally not recommended for:

- Provoked VTE
- Oral contraceptive-associated VTE
- Most first-time VTE presentations

Dr. Rannelli emphasized that thrombophilia testing rarely changes management decisions.

Oral Contraceptives and VTE Risk

The session included an important review of estrogen-containing contraceptives and thrombosis risk.

While oral contraceptives increase relative VTE risk approximately 3.5-fold, Dr. Rannelli emphasized that the absolute risk remains low because these patients are typically young and otherwise healthy.

Key Management Points

- Patients who develop VTE while on oral contraceptives should generally discontinue estrogen-containing contraception
- Alternative contraception options, such as IUDs, should be discussed
- Patients do not necessarily need immediate discontinuation if already fully anticoagulated, allowing time for safe transition planning
- Reinitiating estrogen-containing oral contraceptives after VTE is generally discouraged due to recurrence risk

He also highlighted recent literature from thrombosis experts suggesting thrombophilia testing is not routinely indicated in oral contraceptive-associated VTE.

Cancer Screening in Unprovoked VTE

Dr. Rannelli reviewed the association between unprovoked VTE and occult malignancy.

A major teaching point was that:
Routine "pan-scanning" is not recommended for all patients with unprovoked VTE.
He referenced Canadian evidence demonstrating that extensive abdominal imaging did not significantly improve cancer detection compared with standard age-appropriate screening.

Recommended Approach

Primary care providers should:

- Ensure age-appropriate cancer screening is updated
- Maintain vigilance for concerning systemic symptoms
- Escalate investigation when clinical suspicion exists

Red Flags Suggesting Further Workup

- Unexplained weight loss
- Night sweats
- Constitutional symptoms
- Recurrent or migratory thrombosis
- Persistent unexplained abnormalities

Clinical judgment remains essential.

Post-Thrombotic Syndrome (PTS)

Dr. Rannelli described post-thrombotic syndrome as one of the most common long-term complications following DVT.

PTS results from:

- Residual clot burden
- Venous valve damage
- Chronic venous reflux

Common Symptoms
Patients may experience:

- Chronic swelling
- Leg heaviness
- Skin discoloration
- Venous ulceration in severe cases

Management Strategies
Evidence for treatment remains limited.
Although compression stockings are commonly prescribed, large studies have not demonstrated clear prevention benefit after DVT. However, Dr. Rannelli still uses compression therapy symptomatically in select patients.

Current recommendations focus on:

- Regular exercise
- Walking programs
- Calf muscle strengthening
- Avoiding prolonged immobility

He also discussed emerging evidence supporting iliac vein stenting in carefully selected patients with severe post-thrombotic syndrome.

Aspirin Has a Limited Role in VTE Prevention

Dr. Rannelli clarified that aspirin is not an adequate substitute for anticoagulation in VTE prevention. While aspirin may modestly reduce thrombosis risk, its protective effect is substantially weaker than anticoagulation.

Key Point
Aspirin should generally only be used when patients have another cardiovascular indication rather than solely for thrombosis prevention.

Practical Referral Guidance

Dr. Rannelli encouraged clinicians to utilize thrombosis consultation services when needed, particularly for:

- Recurrent thrombosis
- Unprovoked VTE
- Complex anticoagulation questions
- Suspected antiphospholipid syndrome
- New symptoms while anticoagulated
- Pregnancy-associated thrombosis concerns

He emphasized the importance of early discussion when uncertainty exists.

KEY TAKEAWAYS

- SVT management depends heavily on clot size and location
- Repeat ultrasounds should only be ordered if results will change management
- Residual clot does not necessarily indicate recurrent DVT
- Thrombophilia testing should be used selectively and thoughtfully
- Routine pan-scanning for occult malignancy is not recommended
- Post-thrombotic syndrome is common and often chronic
- Exercise and mobility remain central to long-term management
- Aspirin has a limited role in VTE prevention
- Clinical judgment remains essential when evaluating recurrence risk and cancer suspicion